Factors Influencing Relapse People with Mental Health Disorders in Indonesia

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Abstract—**A cross – sectional study was conducted to study the effects of demographic characteristics, stigma, home visit and stress of caregiver on relapse people with mental disorders in West Sumatera Province, Indonesia. Using a structured questionnaire, data were derived from 313 of caregivers from Mey until July 2013. Descriptive statistic was used to describe demographic characteristic, stigma, home visit and stress of caregivers on the relapse of people with mental disorders while the effect between these factors and relapse was determined by binary logistic regression.**

This study found there was no significant relationship between age and occupational of caregivers and relapse people with mental disorders. While when those factors entered in binary logistic the entire variable had statistically significant effect to relapse people with mental disorders. The strongest predictor of relapse people with mental disorders was stress of caregiver, recording an odd ratio 8.06. This indicated that caregiver whose stress were over 8 times more likely to increase relapse people with mental disorders than those with less stress. The lowest predictor were age of caregivers an odd ratio of 2.07.

It is important for mental health nurse to strengthen their therapeutic relationship with patients and their caregivers. Stress of caregivers can appear because of lack of support from environment and might be because of lack of knowledge and coping skill of caregivers. Furthermore, the home visiting program needs to be improved because of the increased knowledge of nurses in caring for people with mental disorders can reduce relapse. Besides that it is a form of participation and support from social networks.

Keywords — ***relapse; mental health disorders***

I. INTRODUCTION

About 450 million people suffering from mental disorders one person in four will develop one or more mental disorders during their lifetime [1]. Mental disorder is a primary contributor to the global disease encumbrance that often said as communicable and non-communicable disease. In Indonesia, according to the data from Health Research Association in 2007, it was estimated that 19 million people are suffer from mental disorders including schizophrenia and psychosis. The number of people with mental health disorders in West Sumatera was ranked third in Indonesia is about 1.6%. In West Sumatera one mental health, namely hospital "HB Saanin Padang", reported a number of out - patients as 14,582 people in 2009. This number is significantly increased to 23.295 people in 2010 [2].

Based on Usy's (1991) theoretical framework for psychiatric rehabilitation have underlying the assumption that patients and their family are members of psychiatric health team through their active participation in the maintenance of mental health as an integral part of wholeness. Relapse caused by stress from individual (demographic of patients) and social network (social support and skill of family). Internationally, factors commonly associated with relapse include poor adherence to treatment, substance abuse, stressful life event, and the treatment setting [2]. In addition, effective coping strategies and social support can lead relapse of patients with mental disorder [3].

The purpose of this study is to explore the factors that may contribute to the relapse in-patient with mental disorder in Indonesia because in West Sumatera province, the burden of people with mental illness and the number of relapse is still increase in year. Observations by researcher, most of people with mental health disorder and ever get hospitalization will be rejected in community for example: lost in job, isolate from organization in social, and lack of support from family.

II. METHOD

Caregivers who routinely take care of patients or handle patients' samples were targeted in this study. The caregivers will be excluded if the family and patients have chronic disease such as diabetes mellitus, tuberculosis, and HIV/AIDS. Purposive sampling was used to arrive the calculated sample size of 313 caregivers. The caregivers who involved in this study were selected based on criteria inclusion criteria and were willing to participate in this study. The caregivers who come with patient to routinely meet the doctor to get a medicine or consultation and they should live with the patient for more than 3 years in the same house were required as a participant in this study. Beside that the researcher also consider with the age of caregivers more than 18 years old.

The questionnaire of this study consists of five parts:

A. The demographic characteristics section had four questions designed to obtain information about the

caregivers e.g. gender, age, marital status and occupational.

B. The Explanatory Model Interview Catalogue (EMIC) 15 items, designed to measure about the stigma of caregivers [4]. The higher mean score of caregivers will be interpreted as a higher level of perceived stigma.

C. The contents of this questionnaire consist of quality and quantity of standard home visit included 10 items. Five items of this questionnaire was adapted from Burns [5]. Five items were developed by the researcher based on standard procedure of home visit from mental health hospital in West Sumatera and the Ministry of Health Indonesia. This questionnaire was validated by three experts. The answer for each question is either "Yes" or "No".

D. The stress of caregivers section consists of 20 items used family questioner develops by Nurtantri [6].

E. Relapse of patient were measured by using Global Assessment of Functioning Scale (GAF) to note whether the patients had relapse and need treatment. This questionnaire consists of 10 items. If the score of patient falls between 100 to 51 it means that the patient has no need for treatment unless to prevent relapse of severe condition. This will be categorized as not relapse. Whereas, the score is between 50 to 1 means that the patient need inpatient treatment [7].

The reliability of the questioners of stigma, stress of caregiver was assessed using Cronbach's Alpha (0.83 & 0.87). Questionnaire of home visit was corrected by three experts in psychiatric nurse and doctor with the Index of Objective Congruence is 0.70.

Descriptive statistic was used to describe variables. The inferential statistic such as odds ratio, fisher exact and binary logistic regression were used to analyse independent variables and their dependent variable. Approval for this study was granted by Ethic Committee of Baramarajonani Collage NopharatVajirha (BCNNV).

III. RESULT

More than half of caregivers (52.4%) were female and the majority were older age group. The largest numbers of them were married (88.8%). Most of the caregivers (77%) were employed (teacher, officer, farmer, and entrepreneur). Regarding the stigma of caregivers was divided into two levels: higher stigma and lower stigma. More than half of caregivers (57.2%) had higher stigma. Most of caregivers (57.5%) did not get home visit whilst 42.5% was visited by the health care services, nursing student or psychiatric. According to the stress of caregiver, 89.5% of caregivers are feeling not stressful to care family members with mental disorders. According to the result it was found that patient with no relapse is about 54.3%, and relapse equivalent is 45.7%.

Age and occupational was not statistically relationship with relapse in people with mental disorders. The p – value of age and occupation were higher than significant value 0.05. Regarding to the gender of caregivers, male were more likely to occur relapse people with mental disorders 2.56 time than female. Furthermore, caregivers who got married more likely to influence relapse of people with mental disorders 2.69 times than caregivers did not married. Stigma of the caregivers had statistically significant effect with relapse of patient with mental health disorder. The caregivers who have higher stigma more than likely 2.68 times to influence relapse people with mental disorders than caregivers who have lower stigma. Home visit had statistically significant relationship with relapse people with mental disorders (p – value = 0.00). Relapse in people with mental health disorders was less likely to occur in caregivers who do not get home visit (OR = 2.77). Stress of caregiver had statistically significant relationship with relapse patient mental disorder. The higher stress of caregivers more likely 4.29 times to influence relapse people with mental disorders than the lower stress.

To adjust the effect of all variables in the study were analysed by binary logistic regression. Table 1 shown, that all of variable independents were statistically significant ($p < 0.05$). The model as a whole explained that the value of Nagelkerke's R Square was 0.342. It means that demographic characteristic, stigma, home visit and stress of caregivers have an influence on relapse is about 34.2%. The strongest predictor of relapse people with mental disorders was stress of caregiver, recording an odd ratio 8.06. This indicated that caregiver whose stress were over 8 times more likely to increase relapse people with mental disorders than those with less stress. The lowest predictor were age of caregivers an odd ratio of 2.07

TABLE I. BINARY LOGISTIC TEST FOR DEMOGRAPHIC CHARACTERISTICS, STIGMA, HOME VISIT, STRESS OF CAREGIVERS AND RELAPSE

Variables	**B**	**S.E**	**df**	**P**	**OR**	**95% C.I for odds**
Stress of caregivers	2.09	0.47	1	0.00	8.06	3.21 – 20.26
Marital status	1.61	0.49	1	0.01	5.00	1.93 – 12.92
Occupation	1.40	0.35	1	0.00	4.06	2.04 – 8.10
Gender	1.23	0,30	1	0.00	3.43	1.92 – 6.12
Stigma	1.19	0.28	1	0.00	3.30	1.91 – 5.71
Home visit	0.97	0.28	1	0.00	2.65	1.54 – 4.56
Age	0.73	0.28	1	0.01	2.07	1.19 – 3.59
Negelkerker R Square = 0.34						

IV. DISCUSSION

According to the finding, the stress of caregivers is a strongest predictor to relapse on the patient with mental

health disorders. If caregivers are stress, they more likely to affect the relapse of patient with mental disorders consequently. Expressed stress of caregivers will demonstrate thought an attitude that makes the patient fall back into bad habits and form the cycles of relapse and rehabilitation.

Pearlin and Turner (1987) provide a conceptual road map for understanding how stress is transmitted among caregivers. First, the caregivers itself servers as a source of stress, not only as a source of eventful change and the consequent demands for realignment within the family but also as a source a persistent strains such as interpersonal conflict. Second, the family acts as a conduit for extra familial sources of stress. For example, when the caregivers face emotional disturbance from externals or social roles are brought into family then it might be influenced the performance and attitude of caregivers. Additionally, the patients sometime cannot understand with this situation it's could be become arguments and tension between caregivers and patients. Furthermore, external conditions may also pose a direct threat to the functioning of family relations [8].

Regarding the previous studies have conducted about stress of caregivers by using Expressed Emotion (EE). Study from [9], [10], [11], [12] mentioned that higher stress of caregiver more likely to increase relapse of patients with mental disorders and EE is primary outcome of positive symptom of relapse in research about mental disorders. Again, the high EE about patient among family members reflect a pattern of interaction within the family that is stressful for the patient [13].

On other hand, any studies linked between culture and EE. Kuippers and Coia [14] described that several of culture influence to scale of EE. Cultural differences in developing countries by advanced countries can affect the level of family stress in caring patients. Coai [15] described that India was lower stress than Denmark and England. Research from Japan also indicated that EE have varying prevalence across different cultural [16]. Similarity of the previous study conducted on the relationship between EE and cultural to relapse in Bali compare with Japan found that prevalence stress of caregivers higher in Japan than Bali [17]. Over all of those studies explained that involvement family and social support in developing countries is stronger than advanced economic countries. This could be assumed that the involvement of families and caregivers in caring for entire family members with mental disorders were likely to be large and the onset of stress and tension between caregivers and patients were also large

According to the result home visit was effect on relapse people with mental health disorders. This means the patient who had been visited by healthcare worker was more likely to influence relapse people with mental disorders rather than the patients who had not received home visit.

One year ago the home visit program has been provided by the hospital psychiatric disorder but recently program home visit is only conducted by students nurses and medical students who practice at the hospital. This program is only done once and not regularly in every patient, but it is routinely conducted every month by students who practice in this hospital. According to Schwab et.al [18] mentioned that only home visit can give the clinician a comprehensive view of the family and its conflict, troubles, resources, and strength. At home, families often are able to present their strength more effectively than in the clinician's office. It can be reduce the relapse of patients with mental disorders.

In addition, increasing mutual understanding and harmony among family members, strengthening the patient's functioning at home, increasing the family member's understanding of psychiatric symptom and improving skill are the most important task of community mental health nurses with regards to lightening the caregiver burden and reducing relapse among patients with mental health disorders [19]. Result from respondents from South Africa described that 92% of the respondents agree that the mental health nurses seldom visit the home of the mental ill and can linked to occur relapse of patients [20].

Studies from [21], [22], and [23] showed that home visit can reducing hospitalizations and increasing patient quality of live. Studies mentioned that treatment within patients own home may be preferred mode management because it is more conductive to the maintenance of better health and functioning in patient [24] and [25]. Not only this, but Muijen [23] described that home care might be beneficial because it allows intervention in the natural setting and without the related problem of institutional.

Over all the previous studies mentioned that home visits may affect relapse and better ways to reduce patient relapse.

V. CONCLUSION

The result showed the demographic characteristics factors event thought caregivers of patient was rather of old age and they got married; most of them a female were can increase the relapse patient with mental disorders. The result found age and occupation had no relationship with relapse patients with mental disorders.

The caregivers who get home visit, higher stigma and higher stress had effect to increase relapse people with mental disorders. It is important for mental health nurse to strengthen their therapeutic relationship with patients and their caregivers. Stress of caregivers can appear because of lack of support from environment and might be because of lack of knowledge and coping skill of caregivers. Furthermore, the home visiting program needs to be improved because of the increased knowledge of nurses in caring for people with mental disorders can reduce relapse. Besides that it is a form of participation and support from social networks.

ACKNOWLEDGMENT

The author thank to administrator of the psychiatric hospital that permitted to conduct this research and support during the research. The author also said grateful to all of the caregivers who consented to take part in the study. This study was supported from High Educational Directorate of

Indonesia and Institute Health Education West Sumatera. High appreciation are directed to Director of Boromarajonani College of Nursing NopparatVajira, all of lecturer and staff especially for Dr.SushwaaWichaikul and Dr.Suparpit Von Bowman who gave author many facilities during my study in the Thailand.

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